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"Can Brand Users Really Remember Advertising More Than Nonusers?"

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Are Brand Users Really More Likely to Remember Advertising?

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Abstract

Past research shows that advertising awareness is systematically higher among a brand's users than non-users; confirming this statement as an empirical generalization. However, this past research is confined to measures where brand name forms part of the cueing material. Our research across six different measures, which extends cues to execution and media prompts, shows the user bias in memory for advertising is not a measurement artefact, but rather a real phenomenon, occurring under a wide range of conditions. This has implications for creative design, branding and pre-testing, particularly if advertising aims to attract non-users. It also impacts metrics for assessing global or cross-platform advertising.

Management Slant

- The results show that, irrespective of whether the brand is present or absent in the advertising awareness question, brand users systematically remember advertising more than non-brand users do.
- To avoid biases from brand size or media audiences confounding awareness scores at the aggregate level, advertisers should examine brand users and non-users separately.
- If the brand's strategy is growth via attracting new customers, then advertising should be pre-tested with non-users to maximise cut-through to this harder to reach group.

Introduction

Advertising effectiveness measures provide tools to evaluate a brand's advertising. One such measure is advertising awareness, which identifies whether traces of a brand's advertising reside in consumers' memories. These measures capture the impact of advertising, and can act as screening questions to identify respondents for subsequent measures, such as likeability or message comprehension (Dubow, 1994; McDonald, 2000). Campaigns are lauded, changed or abandoned based on the results from these intermediary measures.

Advertising effectiveness measures provide an early indication of advertising performance, particularly in environments where the relationship between advertising activities and sales is muddied by price promotions and other in-store activities. Correct measurement is crucial for decisions regarding investment in specific executions. In addition to the practical uses, the nature of the responses to advertising effectiveness measures helps theorists understand how advertising impacts consumers. However, these benefits to theory and practice are only accrued when the measures are accurate and contextualized, so that one may appropriately interpret results. Contextualization is important for advertising awareness measures because many factors can impact the score achieved by an advertisement.

When measuring advertising awareness, researchers provide respondents with a retrieval cue, to trigger respondents' memories of a brand's advertising. There are many types of advertising awareness measures, with each type drawing on a particular cue and requiring a specific response (McDonald, 2000; du Plessis, 1994a). An example of a *category* cue is: "What *soft drink* brands have you recently seen advertising for?". In contrast, a *brand* cue asks specifically about advertising for a named brand: "Have you recently seen any advertising for *Brand X*?". An *execution* cue may involve showing stills, showing the entire advertisement, or describing it verbally (du Plessis, 1994a). The choice of cue and the difficulty of the response affect the absolute level of advertising awareness; broader cues and easier responses gain higher response levels (Romaniuk and Wight, 2009; Romaniuk et al., 2004; Brown, 1988).

Users' past experiences with a brand also impact their response level. Brand users are more likely to remember seeing their brand's advertising than are the brand's non-users; defined as category users who are not current users of the advertised brand (Harrison, 2013; Romaniuk and Wight, 2009; Rice and Bennett, 1998). This empirical generalization has been observed across multiple categories and countries, but only for questioning approaches that use the

brand name (Harrison, 2013; Romaniuk and Wight, 2009; Hammer and Riebe, 2006; Sharp et al., 2001, 2002). That is, the brand formed part of the cueing material in a brand- cued question, like “Have you seen any advertising for Coca-Cola?" Alternately, the brand was the answer to a category-cued question where respondents must retrieve the brand name, such as “Which soft drinks brands have you seen advertising for?” These brand-centric approaches might enhance retrieval among brand users, who have stronger, more salient brand associations in memory (Krishnan, 1996; Okechuku, 1992; Zinkhan and Muderrisoglu, 1985).

Other cues, such as showing the creative execution as the response cue, and verifying recognition exposure, are not reliant on brand name as a key advertising memory structure, and therefore might not display the same user bias. This has yet to be tested in the literature. Testing whether this empirical generalization holds under different cueing conditions allows us to understand if the user bias is a real reflection of differential attention/processing or if it is simply a measurement artefact that can be avoided with a different measurement approach.

If this user bias is evident irrespective of cueing/response material, it would suggest that category buyers have less salient memory structures for advertising for brands they don’t use. It might help explain why non-users are difficult to recruit to become brand users via advertising, and suggests that opportunity-to-see (OTS) might not be sufficient to determine effectiveness of advertising for this group. However, if this empirical generalization is a measurement artefact, and we are able to identify the conditions under which it is, or is not, observed, then measures can be selected or advertising awareness scores can be calibrated accordingly.

This study, therefore, is concerned with testing whether the empirical generalization that “brand users are more likely to remember seeing their brand’s advertising than are the brand’s non-users” persists across six different advertising awareness measures that vary by cueing material and response required. It also tests the consistency of the quantitative relationship, which is important for developing robust empirical generalizations (Wind and Sharp, 2009). The background literature and prior findings now follow, leading to the specific questions that this research examines.

Background

The theoretical frameworks of human memory underpin the measure of advertising

awareness. In particular, the Associative Network Theories (ANT) of memory (Anderson and Bower, 1980) help explain the cognitive processes that consumers use when retrieving memories of advertising exposure (Heckler et al., 2014; Edell and Moore, 1993; Zinkhan and Muderrisoglu, 1985). ANT represents memory as a network of nodes connected by associative links. Each of these nodes can act as a cue to retrieve linked material from memory (Anderson and Bower, 1980). This structure is the basis for memory processing.

Literature describes two key parts of memory processing: encoding and retrieval (Tulving and Craik, 2000). Encoding refers to how information gets into memory; Retrieval, which is most relevant to this research, refers to the ability to access the stored information from long- term memory. The amount and type of existing knowledge that is already established in memory affects encoding ability (Craik and Lockhart, 1972). Stimuli that are familiar and personally relevant will activate deeper levels of processing than will less familiar or less meaningful stimuli (Celsi and Olson, 1988). Existing knowledge and established memory networks also affect how people pay attention to different aspects of information (Wyer, 2008). Together, these aspects of memory processing suggest that the encoding of new brand information, such as that presented in an advertisement, will be easier for brand users than for non-users, due to brand users having stronger and greater opportunity for linkages between the new brand information and information already in memory (Okechuku, 1992; Romaniuk et al., 2012).

Once encoded in memory, the information is available for retrieval. The depth of encoding, the retrieval cue(s), and the presence of competitive links all affect the retrieval process (Nelson et al., 1993). Therefore, retrieval is generally stacked in favour of brand users who would be expected to encode more deeply, and to have fewer competitive brand links than would non- users. Using a cue or response that involves the brand name further enhances a brand user's ability to retrieve the advertisement, which makes the bias under these cueing/response conditions unsurprising. What is unclear is how much residual bias, if any, remains when the advertising retrieval cues do not involve the brand name.

In this research the authors examine six retrieval approaches commonly used by practitioners to capture advertising awareness, 1) top-of-mind recall; 2) unprompted recall; 3) brand-prompted; 4) brand-plus-media prompted 5) execution-prompted, and 6) execution-plus-media prompted. The conditions also cover different media formats, types of execution prompts--visual or verbal--and allow the testing of past findings, plus extension to new conditions.

The current empirical generalization has been extensively observed in the first three advertising awareness approaches listed above; top-of-mind recall; unprompted recall; and brand-prompted recall. We include these measures as a close replication and to model the relative strength of the bias for the measures new to this study. A brief description of each measure and past findings follows.

Top-of-mind advertising recall, also known as spontaneous ad awareness or first mention, records the first brand recalled as having advertised when someone is prompted with only a category cue (McDonald, 2000). This approach was found to have the strongest user bias, with users on average being 2.7 times more likely to recall their brand's advertising than were non-users (Romaniuk and Wight, 2009). Bias ratios, such as the 2.7 referred to here, are used throughout the paper to provide a comparative figure across past studies and the current results. The bias ratio is calculated by dividing the brand-user retrieval score by the non-user retrieval score, thus the score is interpreted as users are 2.7 times more likely to recall the brands advertising than are non-users.

Unprompted advertising recall also draws on the category as the primary cue for retrieval (McDonald, 2000). However this metric widens the criteria to include any response, rather than just the first response. Previous studies have found that when using unprompted advertising recall, users were 1.6 to 2.5 times more likely to recall their brand's advertising than were non- users (Hammer and Riebe, 2006; Romaniuk and Wight, 2009; Sharp et al., 2001, 2002).

Brand-prompted advertising awareness draws on both the category and the brand as cueing material (McDonald, 2000). This is a cognitively easier retrieval method than top-of-mind and unprompted recall methods, as the addition of the brand cue provides stronger links with stored advertising associations in the consumers' memory (Romaniuk and Wight, 2009; McDonald, 2000). Across two studies the user bias ratio was found to be 1.7 and 1.3

respectively, which is lower than top-of-mind and unprompted recall measures (Romaniuk and Wight, 2009; Hammer and Riebe, 2006).

A subset of papers draws on linear regression modelling to quantify the relationship between user and non-user awareness scores. These results suggest a strong relationship between user and non-user advertising awareness, with Romaniuk and Wight (2009) reporting an Adjusted R^2 of 0.93 ($p<0.001$), while Sharp, Beal and Romaniuk (2001) reported an Adjusted R^2 of 1.83 ($p<0.001$). As a consequence, a strong relationship between user and non-user memory for advertising is generally expected.

The three approaches described above access respondents' memory network via an indirect link between the brand or category and the advertising, rather than directly through an advertising cue such as showing the execution. The next three advertising awareness measures provide more direct links to advertising memories.

Brand-plus-media-prompted advertising awareness is where respondents are provided with the category, brand and media used to deliver the advertisement, such as television, radio, magazine etc., as cues to test memory for advertising. Harrison (2013) measured the user bias for this cueing approach across 160 different brand contact touch-points, including paid, such as television advertising, owned, like the brand website, and earned touch-points, such as friends and family recommendations. Paid touch-points, which are the most directly relevant to this research, had the lowest user bias, ranging from 1.3 to 1.7, with one exception of 2.1 for advertising observed on mobile phones (Harrison, 2013).

Execution-prompted advertising awareness uses the specific creative execution as the cue to trigger respondent memory (McDonald, 2000). This is a recognition, rather than a recall task, and therefore gains higher response levels due to the ease of the matching task (Stapel, 1998; du Plessis, 1994a). This measure is not dependent on the brand or the category as an entry point into the consumer's memory; rather the respondent may see or hear a description of an advertising execution without the brand present (du Plessis, 1994a). The provision of creative-based cueing information should make it easier for non-users to remember the exposure, by making accessible memories of the advertising that might be inaccessible under brand-centric cueing approaches (Tulving and Pearlstone, 1966). Hammer and Riebe (2006), which to our knowledge, provide the only evidence of user bias effects for this awareness approach, with a bias ratio of users being 1.2 times more likely to remember exposure than

non-users.

Execution-plus-media-prompted advertising awareness, the final measure tested, is where respondents are asked whether they remember seeing a particular execution, but with the additional cue of a specific media to guide retrieval, such as "Have you seen the following advertising on TV?" The addition of media should narrow the memory search criteria, and should lead to a more accurate reflection of exposure, thereby further decreasing the user bias. However, to the authors' knowledge, no previous studies have tested this approach.

We ask the following research questions:
RQ1: Do all six types of advertising awareness measures display a user bias in responses?
RQ2: Is the user bias lower or higher for any specific type of cueing material?
RQ3: Is the user bias lower when the brand is not part of the cue or response material?

Research Method

This study took an empirical generalization approach as advocated by Wind and Sharp (2009). Data from multiple executions for different brands were examined in different categories and countries. Close replications of prior studies were first conducted using category and category-plus-brand cue approaches. This was followed by differentiated replications drawing on the different cueing approaches of brand-plus-media-prompted, execution-prompted and execution-plus-media-prompted advertising awareness. The relationships were modelled across different types of cueing approaches to test for generalisability and for boundary conditions (as per Lindsay and Ehrenberg, 1993).

The analysis involved 26 different data sets (see Table 1). The data sets were collected as part of industry studies--typically continuous brand and advertising trackers--for the purposes of evaluating advertising, and are subject to the same screening and quality criteria used in practice. The sampling frames included category users only, with samples collected via a variety of methods including face-to-face, telephone, and online panels. The data sets comprise a wide range of conditions with 101 executions, 88 brands, 18 categories, 10 countries (Australia, China, India, Portugal, Russia, South Africa, Spain, Taiwan, Turkey and UK) and five media formats (Television, Print, Radio, Outdoor and Online). The use of such a diverse set of data, collected under different conditions, contributes to the robustness

of the research as it suggests that findings are not due to any specific study circumstances. Further, as the data are drawn from real world surveys, it provides confidence for advertising practitioners that the findings of this study will be highly likely to be replicated in their own survey data.

Table 1 – Description of Data Sets

Category	Countries	Years	Total Sample (n)	Brands	Media Formats Analysed
Alcoholic Beverages	Portugal, Russia, Spain, South Africa, Taiwan & UK	2010-12	4,163	12	TV, print, radio, outdoor & online
Automotive Services	Australia	2002-06	13,827	1	N/A
Dry Pasta	Australia	2011	653	3	N/A
Energy Drinks	UK	2012	913	2	TV
Fast Food	Australia	2006	262	4	TV
Financial Services	UK & Australia	1999 - 2012	6,074	13	TV, print, radio & outdoor
Fuel	UK	2012	913	1	TV
Instant Coffee	UK	2008	71,725	6	N/A
Instant Tea	UK	2008	71,725	5	N/A
Motor Vehicle	Australia	2002-06	13,827	1	TV
Mouthwash	India	2011-12	4,485	4	TV, print, radio, outdoor & online
Pay TV	Australia	2006	262	1	TV
Personal Care	Australia	2006	262	4	TV
Pharmaceutical	Australia	2006	262	2	TV
Protein	Australia	2012	1,023	6	TV, print & online
Soft Drinks	UK & Australia	2006, 2012-13	24,418	5	TV, print, radio & outdoor
Telecommunications	Australia	2006	262	2	TV
Toothpaste	China, India & Turkey	2010-12	34,290	16	TV, print, radio, outdoor & online
Totals	**10**	**Multiple**	**159,745***	**88**	**5 Formats**

**Data sets may have been used across multiple categories, however sample only counted once per data set.*

Depending on the scope of the data, multiple advertising campaigns were tested for some brands. When multiple tests of similar executions from the same campaign were present, the

sample was narrowed to only one execution to avoid duplicate responses. Examples of the questions asked of respondents are provided in Table 2 for each of the six advertising awareness measures. Across the 26 data sets, 247 brand level observations were measured across the six different conditions.

Table 2 - Summary of awareness measures and examples of questioning techniques

Awareness Measure	Cueing Material	Example Question
Top-of-Mind	Category	"Which toothpaste brands have you recently seen advertising for?" (Only first response counted)
Unprompted	Category	"Which toothpaste brands have you recently seen advertising for?" (All responses counted)
Brand Prompted	Category + Brand	"Can you remember seeing toothpaste advertising for Brand X?"
Brand + Media Prompted	Category + Brand + Media	"Have you seen toothpaste advertising on TV for Brand X?"
Execution Prompted	Category + Unbranded Execution (Visual or verbal)	"Have you seen this toothpaste advertising?" "Have you seen the toothpaste advertising where the family are in the bathroom...?"
Execution + Media Prompted	Category + Unbranded Execution + Media (Visual or verbal)	"Have you seen this toothpaste advertising on TV?" "Have you seen the toothpaste advertising on TV where the family are in the bathroom...?"

Classifying brand usage

In each data set respondents were first screened to ensure that they were users of the category; they then later answered questions relating to their use of brands within a specific time period. These time periods varied depending on the category and were designed to reflect the broader concept of being a current customer. This meant shorter time frames for frequently bought categories and longer for less frequently bought categories. For example, for Soft drinks a time frame of "bought or consumed in the past 3 weeks" was used, whereas "currently holds products with the brand" was used for Financial services. We acknowledge that for these repertoire categories light users may be categorised under the non-user group and thus the distinction is between heavy versus light or non-users, as opposed to clearly defining user and non-user groups. This approach is consistent with

past research.

The primary analysis involved cross-tabulations between the brand usage and advertising awareness measures, with Pearson's chi-square statistics employed to determine the statistical significance of the result. Statistical testing is considered less important for replication and extension studies when multiple sets of data are investigated (Lindsay and Ehrenberg, 1993; Ehrenberg, 1990). Accordingly, the directions of those results not quite passing conventional statistically significant thresholds were also examined.

Results

Our results show that across each of the six different measures tested brand users are typically more likely to remember advertising for their brand than are non-users. In 177 of the 247 observations, or 72 percent, these differences were statistically significant at $p<0.05$; a further 21 percent trended in the same direction, with 51 such observations. This provides a total of 92 percent with statistically significant or trending results in favour of users being more likely to remember their brand's advertising exposure than non-users. This result is consistent with past literature and demonstrates that the empirical generalization holds under this broader range of cues.

This result addresses RQ1; the user bias is evident across all six types of advertising awareness measures.

Drawing on the median, to minimise outlier influence, Our findings also show that the average user response level was 18 percentage points higher than the average non-user response level (Table 3). The difference in median scores between users and non-users was highest for brand-prompted advertising awareness at 21 percentage points, and lowest for brand-plus-media-prompted advertising awareness at 8 percentage points. This variation is explored further in RQ2 and RQ3.

Table 3 – Summary of median results across awareness measures (ordered by bias ratio)

Awareness Measure	Cueing Material	Total Obs. (n=247)	Retrieval %		Bias Ratio*
			User	Non-Users	
Top-of-Mind	Category	30	16	3	5.3
Unprompted	Category	32	28	9	3.1
Brand Prompted	Category + Brand	33	33	12	2.8
Brand + Media Prompted	Category + Brand + Media	51	13	5	2.6
Execution Prompted	Category + Execution	25	43	23	1.9
Execution + Media Prompted	Category + Execution + Media	76	51	38	1.3
		Median All	**31**	**13**	**2.4**

*The bias ratio is calculated by dividing the user retrieval score by the non-user retrieval score.

The effect of cueing material on the level of bias

Having determined that there are significant differences between user and non-user awareness scores, we used multivariate regression modelling to determine if the different types of cues included in the awareness measure explain the variance in the scores. To explore the reasons for the variance, the measures were decomposed using three key characteristics that could affect the user bias levels. These were:

(1) Brand forms part of the cueing material

- Having the brand present should lead to an increased bias towards brand users as it provides a direct link to existing brand knowledge in memory.

(2) Advertising execution forms part of the cueing material

- Having the execution shown visually with images or described verbally should reduce the user bias, as the execution provides direct links to existing knowledge of the advertising. The reduction in the user bias should be even more evident for visual execution cues, which are richer in stimuli than are verbal descriptions.

(3) The media type of the advertising

- Having a media specified should reduce the user bias as it provides narrower search criteria in memory. Advertising for visually rich media, such as television, should lead to an even lower user bias than for less visually rich media, such as radio.

In addition, country and data collection method were explored as covariates. Country was entered via two dummy variables: Australia and the UK. There was no relationship. Therefore, so in the interest of parsimony and given the lack of theoretical basis for the inclusion of country, this information was omitted from the multivariate model. To test the effect of data collection method, three dummy variables were included: face-to-face, telephone and online. High collinearity prevented their use in the multivariate model; for example, telephone data collection could only use a verbal execution prompt.

Non-user awareness is the dependent variable, and the conditions of brand present, visual or verbal execution prompts and different media types, were added as dummy covariates. The overall adjusted R^2 = 79%, F =105.4, $p<0.001$. The variance explained is quantitatively in line with past studies that focus on a narrower range of advertising awareness measures (Romaniuk and Wight, 2009; Sharp et al., 2001), and show user awareness level is the strongest predictor of non-user awareness (ß=0.78, $p<0.01$). Also significant are the two execution types, verbal and visual (Verbal ß =0.21, $p<0.01$; Visual ß =0.12, $p<0.05$). This suggests that adding an execution cue to the retrieval approach reduces the difference between user and non-user response levels, as the user awareness score plus execution prompt predicts more accurately the non-user awareness score. While it appears that a verbal execution description is a stronger predictor, the overlapping confidence intervals with visual execution means that it is impossible to draw this conclusion. There was no significant contribution to explaining non-user awareness scores from including either media type or brand name in the cue. Further, the confidence interval for these variables crosses zero, indicating that in some observations the predictor has a negative relationship, whereas in others it has a positive relationship. In addressing RQ3, this result shows that using the brand name or media type as a cue may affect the overall response level, but does not lead to non- users being more or less likely to remember advertising.

Table 4 – Overall regression coefficients results for estimation of non-user awareness levels

Model	Unstandardised Coefficients		Standardised Coefficients	t	*P*	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower	Upper
(Constant)	-7.2	1.54		-4.7	<0.01	-10.3	-4.2
User	**0.75**	**0.04**	**0.78**	**20.5**	**<0.01**	**0.7**	**0.8**
Verbal Execution	**14.4**	**3.5**	**0.21**	**4.1**	**<0.01**	**7.5**	**21.3**
Visual Execution	**5.4**	**2.6**	**0.12**	**2.1**	**<0.05**	**0.3**	**10.4**
Brand Present	1.8	2.0	0.04	0.9	0.37	-2.1	5.7
Radio	3.5	3.1	0.04	1.1	0.26	-2.6	9.7
Print	0.7	2.5	0.01	0.3	0.77	-4.2	5.6
Online	-1.1	3.8	-0.01	-0.3	0.78	-8.6	6.5
Television	-0.5	2.3	-0.01	-0.2	0.83	-5.0	4.0
Outdoor	-1.0	2.7	-0.01	-0.4	0.72	-6.4	4.4

Discussion

This research further develops our understanding of how past experiences with a brand influences attention to advertising and processing it into memory. This study finds a systematic pattern: among current users of the category, a brand's users are more likely to remember seeing that brand's advertising than are non-users of the brand. This finding, tested across 247 brand level observations, holds across six different advertising awareness approaches, under conditions of there being a brand or no brand present in the cueing or response materials, two different types of execution prompting and five different media.

The results show that, irrespective of whether the brand is present or absent in the advertising awareness question, brand users systematically remember advertising for that brand more than do non-brand users. This removes any prior concerns about the bias being merely a methodological artefact that could potentially be eliminated through changing the advertising awareness questioning approach. Rather, these results show that this brand user bias of heightened memory for a brand's advertising is a universal aspect of advertising response patterns.

The results also provide evidence that the reported differences between advertising recall measures are largely due to scaling effects. For example, the higher bias ratio for top-of-mind advertising awareness is a reflection of the low response levels for both brand users and non-users alike. It is the lower base of non-users that inflates the bias when expressed as a ratio. This is also why the regression results across all six measures are important, as they show the bias is not abnormally high as user and non-user awareness scores are correlated. The measures themselves therefore do not enhance or mitigate this bias; rather, each measure simply reflects a bias that is inherently present in buyer memory to a different degree depending on the measure's difficulty. This finding also supports the conclusion of Romaniuk and Wight's 2009 study that non-users need additional prompting or cueing material to remember exposure. Adding an execution prompt, either verbal or visual, reduces the user bias by making it easier for everyone, but particularly for non-users, to remember the exposure. This demonstrates that more non-users are able to remember the advertising when cueing material specific to the advertising is provided, rather than just using the category or brand. This finding also supports the conclusion that the user bias is a real phenomenon, and not a measurement artefact.

We also find that including the media type or brand name cue in the awareness measure does not contribute to our regression models ability to predict non-user awareness scores, further to that explained by user awareness scores and the presence of a visual or verbal execution prompt. This may be due to the execution prompt implicitly revealing the media type by its inherent qualities. A video cue would typically suggest TV advertising, compared to the starkly different look and level of detail a still image for print and outdoor advertising would imply, thus providing a media type cue may not provide the respondent with any further memory prompts. For the brand name cue the non-significant result in our model may be due to the indirect link to a brand's advertising memories via the brand name, compared to the more direct link an advertising specific cue such as the execution would provide.

The fact that the user bias was still evident when using execution prompts, which are considered a recognition task, suggests that exposure to advertising does have less of an impact on non-users; in line with Celsi and Olsen (1988). This suggests that opportunity-to-see (OTS) might not be sufficient to determine effectiveness of advertising, as non-users are less likely to pay attention to or process a brand's advertising. All viewers with an OTS therefore do not have equal processing, and thus response, capability.

Our results also add to the literature highlighting the importance of separating user and non-user responses in analysis to avoid misleading results and conclusions (such as in Romaniuk et al., 2012).

Furthermore, the findings shed some light on why it is difficult for advertising to expand category sales through recruiting new category buyers. Non-users of a brand have a low propensity to remember advertising for brands that they do not use. It is then possible to extrapolate that someone for whom both the category and the brand have low relevance might be even less likely to remember advertising exposure, thereby diminishing its impact.

Implications for Practitioners

This research has important implications for research professionals and practitioners. For marketers assessing the effectiveness of a brand's advertising, our findings suggest the choice of advertising awareness measure matters, as more difficult measures will dampen responses from users and non-users, but as a ratio, non-users are particularly penalised. Therefore we recommend an approach that is easy for all respondents to retrieve, such as an execution based recognition task. Regardless of the measure used, practitioners should always be encouraged to separate out responses for brand users from non-users, to account for the usage bias that is ubiquitous in all advertising awareness measures. This will avoid understating exposure levels and overstating the impact of advertising on those exposed, which will be comprised of a larger proportion of brand users for more difficult measures.

Separating brand users from non-users will also improve advertising effectiveness studies where advertising awareness measures act as screening questions for subsequent measures, such as advertising likeability or message comprehension. In such approaches, only respondents who remember the brand's advertising are asked further questions, so these findings suggest that execution-prompted approaches will be most effective in capturing advertising exposure across both brand users and non-users, and therefore provide a full assessment of advertising performance.

This systematic difference between brand users and non-users has important implications when marketers are assessing a global campaign, where the brand varies substantively in market share across countries. All advertising awareness measures are shown to be biased to users and so aggregate-level metrics may inaccurately imply a campaign is less successful in countries where market shares are lower, since the user bases are much smaller. This could

lead marketers to make unnecessary modification of campaigns to compensate for perceived lower advertising awareness.

An advertisers' interest in reaching non-users or brand users depends on their chosen strategy for growth. If a brand's strategy is to grow by attracting new customers, as advocated by the vast majority of empirical studies (see Baldinger et al., 2002; Anschuetz, 2002; Romaniuk et al., 2014), these results suggest that the brand's advertising should be developed with non brand users, but who are category users, in mind. The advertising should be pre-tested on this segment to optimise message take-out, cut-through and ad likeability, so that it is more likely to gain attention and break through clutter (Biel and Bridgwater, 1990; du Plessis, 1994b; Walker and Dubitsky, 1994).

Another approach is to draw on Distinctive Assets to introduce the brand, which are any non-brand name elements that trigger the brand in the minds of category buyers (Romaniuk and Nenycz-Thiel, 2014), to avoid non-buyers switching off due to lack of personal relevance. A future area of creative research should examine the types of brand advertising that have higher or lower relevance to non-brand users. It might be that a different creative style or message is needed to cut through to those who do not use the brand at all, or very often, compared to that needed to appeal to more regular brand users.

The user bias effect was consistent across media types, which in addition to showing the robustness of the generalization, also suggests that advertisers should understand the difference in audience bases of specific media and the degree to which they proportionally attract brand users and non-users. For example social media audiences skew more towards heavier brand users (Romaniuk et al., 2013; Nelson-Field et al., 2012). If comparing the advertising awareness of a social media campaign with one on television, television might be unfairly disadvantaged merely because it reaches a higher proportion of non-users, thereby hampering its cut-through scores. Only by comparing brand users and non-users separately can an advertiser determine if this is due to the different effectiveness of the advertising itself, or due to the different composition of the advertising's audience. This is a necessary task to avoid incorrectly attributing the lower results to the effectiveness of the creative. These implications for practice flow into media planning, and highlight the importance of ensuring that media schedules reach non-user groups and that media vehicles are not skewed to existing and/or heavier brand users.

Limitations and Future Research

The main limitation of the research design relates to the use of secondary data. Using secondary data provides a wealth of data sets, minimises confirmation bias, and enables results to be generalized across varying conditions, but this study is constrained to the design and data collection techniques of the previous studies. A second limitation is that the choice of brand usage variable was limited to those available within the existing data sets. Finally, whether the respondents had the opportunity to see the advertisement cannot be verified, unless done so in primary collection. This is likely to be an important consideration for more targeted media where the reach of non-users might be systematically lower, such as for Facebook fan pages as described by Nelson-Field, Riebe and Sharp (2012). While these may be perceived as limitations, these conditions exist in real world studies and the consistency of the findings of this study in spite of these limitations highlight the robustness of the empirical generalization. For it to continue to be beneficial for marketing science and to see how far the generalization extends, further testing in a wider range of countries and media should be conducted.

The finding that the user bias phenomena is present in all advertising awareness measures opens up the question as to why this occurs and if it can be addressed by creative elements. Is it that brand users pay more attention to advertising? If so, what type of attention? Is it that the base of knowledge that brand users have that makes the memory of new exposures processed more deeply and therefore easier to retrieve? Another avenue to explore is the role of the prominence of the brand. For example if the brand is shown earlier in a Television/Video advertisement, do non-users switch off their attention and therefore process the rest of the advertising less? In that case there may be differences in brand user/non-user biases based on the quality of branding in the execution.

Empirical research into brand growth shows that attracting new users is vital for packaged goods brands to grow (Baldinger et al., 2002; Anschuetz, 2002; Romaniuk et al., 2014). Therefore, a useful stream of research would be to determine if it is possible to design advertising that is equally effective among brand users and non-users. This may be a difficult task given that for non-users advertising needs to prompt trial, whereas for users it should aim to prompt repeat purchase. Regardless, some level of processing is necessary to prompt either of these responses, so it is important to conduct research to determine if advertising creative

factors can generate equal awareness scores among brand users and non-users. Further studies could delve beyond advertising awareness into additional measures of effectiveness, such as likeability or message comprehension (Dubow, 1994; McDonald, 2000). It would also be useful for researchers to explore if there are systematic differences between users and non-users scores on these more complex measures. These are all potentially valuable areas of research that will help advertisers get more return on investment from their advertising expenditure.

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